Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

Conditional Major Permit No. F-06-052
DIVERSIFIED COMPOSITES, INC.
ERLANGER, KY.
October 24, 2006
SUKHENDU K MAJUMDAR, REVIEWER
Plant I.D. # 21-015-00118
SIC/Source: 3089
AI # 37172

STATEMENT OF BASIS:

SOURCE DESCRIPTION:

Diversified Composites, Inc. submitted a permit renewal application that was received by the Division for Air Quality on August 4, 2006. A significant revision application for the addition of two Pultrusion machines was received by the Division on November 1, 2005. Diversified Composite, Inc. has asked that the source would maintain federally enforceable permit status that would require Hazardous Air Pollutant (HAP) control. This keeps their potential to emit of HAPs under the major source threshold. Diversified Composites, Inc. manufactures reinforced fiberglass products through a process of pultrusion. The facility uses various resins, coloring agents, fillers, and cleaning agents, in varying percentages across the existing eight (8) pultrusion machines. The facility submitted a significant revision application to add two (2) new pultrusion machines in an adjacent area of the facility designated as Plant # 2.

The Diversified Composites, Inc. site is located at 1600 Dolwick Drive, Erlanger, in Boone county, Kentucky. The reinforced fiberglass of different shapes and sizes manufactured at the facility includes the following:

PLANT # 1

Emission Unit: 02(EP2)		Pultrusion Process
Process Number:	MP1 (MP1)	Pultrusion Machine # 01
Maximum capacity of the system		17.71 pounds per hour
Year of installation of system		1991
Process Number:	MP2 (MP2)	Pultrusion Machine # 02
Maximum capacity of the system		104.17 pounds per hour
Year of installation of system		1991
Process Number:	MP3 (MP6)	Pultrusion Machine # 06
Maximum capacity of the system		6.25 pounds per hour
Year of installation of system		1995

Emission Unit: 03(EP3)		Pultrusion Process
Process Number:	MP1 (MP3)	Pultrusion Machine # 03
Maximum capacity of the system		4.17 pounds per hour
Year of installation of system		1995
Process Number:	MP2 (MP4)	Pultrusion Machine # 04
Maximum capacity of the system		58.33 pounds per hour
Year of installation of system		1992
Process Number:	MP3 (MP5)	Pultrusion Machine # 05
Maximum capacity of the system		52.083 pounds per hour
Year of installation of system		1991
Process Number:	MP4 (MP7)	Pultrusion Machine # 07
Maximum capacity of the system		9.583 pounds per hour
Year of installation of system		1991
Process Number:	MP4 (MP8)	Pultrusion Machine # 08
Maximum capacity of the system		6.33 pounds per hour
Year of installation of system		1991

Emission Unit: 5 (EP5)

Cut Off Saw	
Maximum capacity of the system	6.25 pounds per hour
Year of installation of system	1991

PLANT # 2

Emission Unit: 6 (EP6)		**New Pultrusion Process**
Process Number:	EP6(MP9)	Pultrusion Machine # 09
Maximum capacity of the system		198 pounds per hour
Year of installation of system		Proposed
Process Number:	EP6(MP10)	Pultrusion Machine # 10
Maximum capacity of the system		118 pounds per hour
Year of installation of system		Proposed

Process Number: EP6(MP11) Paint Booth

Maximum capacity of the system	3.31 gallons per hour
Year of installation of system	2004

The existing eight (8) machines process several fiberglass strands that are drawn through a resin bath, clustered, and pass through an electrically heated die. The resins used in the process have different concentration of styrene. The maximum Potential To Emit (PTE) based on the ten pultrusion machines were evaluated using a weighted proportion, worst case scenario, for the various concentration of styrene resins and other HAPs used in the process.

Diversified Composites has incorporated the operations formerly owned by BBS Technologies, located in the same industrial complex. The facility will have two pultrusion machines to produce reinforced fiberglass materials. Presently the facility has a spray booth operating to coat pultrusion parts.

COMMENTS:

Type of control and efficiency

Particulate Control:

Emission Unit	Type of Control	Control Efficiency
05 Cut off saw	Bag House	0.99
06 Spray Booth	Stack Exhaust through Binks Filter	0.989

Diversified Composites, Inc shall maintain the single HAP (styrene) below 9 ton per year and combined HAPs below 22.5 tons per year to keep current federally enforceable (Conditional Major) status, as reference in the permit # F-02-003.

There are no controls on the pultrusion process lines, except the electrically heated resin baths are covered to control fugitive emissions. The chemicals and resins storage areas are separate from the processing area and fugitive emissions are controlled mainly by covering the lids of the containers.

EMISSION AND OPERATING CAPS DESCRIPTION:

Total VOC emissions shall not equal or exceed 90.0 tons per year and actual HAP emissions shall not equal or exceed 9.0 tons per year of any single or 22.5 tons per year of a combination of HAPs. These annual limitations shall not be exceeded during any consecutive 12 month period for the entire source.

Specific Monitoring Requirements:

The permittee shall qualitatively observe opacity at least once per operating day and record results in a log, noting color, duration, density (heavy or light), cause and corrective action taken for any abnormal visible emissions.

Specific Recordkeeping Requirements:

1. The permittee shall keep calendar month records of the usage of base coats, clear coats, solvents and clean up solvents or any other VOC/ HAP containing material.
2. At the end of each month volatile organic compound (VOC) and hazardous air pollutants (HAPs) emissions in tons shall be calculated and recorded.
3. The annual emission for each calendar year shall be calculated and kept available at the plant site.
4. The records listed above, as well as purchase orders and invoices for all VOC/HAP containing materials, shall be made available for inspection upon request by duly authorized representatives of the Division for Air Quality.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provision of 40 CFR Part 60. Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.